Cisco 2500 Series Video Surveillance IP Camera

The Cisco® 2500 Series Video Surveillance IP Camera is a high-resolution, feature-rich digital camera designed for superior performance in a wide variety of environments. The camera employs MPEG-4 compression to stream 30 frames per second (fps) at D1 NTSC resolution (720 x 480) or 25 fps at D1 PAL resolution (720 x 576), offering efficient network utilization while providing high-quality video. Contact closures and two-way audio allow integration with microphones, speakers, and access control systems. (Note: Not all features are supported when using the camera with Cisco Video Surveillance Manager.) With its open, standards-based design, the camera provides an ideal platform for integration and operation as an independent device or as part of a Cisco Video Surveillance network.

Figure 1. Wireless and Wired IP Cameras Shown with Optional DC Auto Iris Lens

The Cisco 2500 Series Video Surveillance IP Camera offers a variety of benefits, including:

- **Wide dynamic range.** The camera employs powerful digital imaging technology, allowing it to capture high-quality images in a wide variety of indoor and outdoor lighting conditions. It uses a progressive scan image sensor with global electronic shuttering to ensure natural color rendition, zero blooming and smear, and minimal motion blurring.
- **Embedded security and networking.*** The camera provides 802.1X authentication and hardware-based Advanced Encryption Standard (AES). For enhanced bandwidth management, the camera supports IP Multicast.
- **Event notification.*** The camera can examine designated areas for activity and notify users or other applications when it detects activity that exceeds a predefined threshold. The camera also provides two digital inputs and two digital outputs that can be used to initiate specific actions when an alarm is detected.
- **Flexible power options.** The camera supports Power over Ethernet (PoE) 802.3af or DC power through an optional external power supply.

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- **Mounting options.*** The camera can be installed with a fixed mount or with an optional external pan/tilt mount and motorized zoom lens.
- **Wireless capabilities.** The wireless IP camera model supports 1 X 2 Multiple Input Multiple Output (MIMO) communication, which provides better data throughput and higher link range than single antenna designs. The wireless IP camera offers strong wireless security using Wi-Fi Protected Access (WPA)/WPA2 and supports various network protocols for 802.1x authentication.

Note: Features with an asterisk are not available when the camera is used with Cisco Video Surveillance Manager.

Features

Table 1 describes the features of the Cisco 2500 Series Video Surveillance IP Camera.

Table 1. Cisco 2500 Series Video Surveillance IP Camera Features

Item	Specification
Imaging Device	1/3-in. complementary metal oxide semiconductor (CMOS) with wide dynamic range
Image Control	Automatic white balance (AWB), automatic back lighting, automatic gain control (AGC), auto/manual iris, sharpness, image quality, time stamp, and camera ID
Dynamic Range	102 dB typical/120 dB maximum
Minimum Illumination	• Color mode: F1.4 @ 0.4 lux (.04 fc) • Black and white mode: F1.4 @ 0.04 lux (0.004 fc)
Signal-to-Noise Ratio (SNR)	>48 dB
Lens Selection	Accepts manual or DC auto iris lens
Lens Mount	CS mount
Shutter Speed	On, off
Video Compression	MPEG-4 SP level 0 to 4, ASP level 0 to 5
Audio Compression*	G.711 A-Law, G.711 U-Law, G.726
Resolution and Frame Rate	• NTSC/PAL • 720 x 480/576 @ 30/25 fps (D1) • 704 x 480/576 @ 30/25 fps (4CIF) • 352 x 240/288 @ 30/25 fps (CIF)
Video Streaming	• Single-stream MPEG-4 up to D1 720 x 480/576 @ 30/25 fps • Dual-stream MPEG-4*: ◦ Primary stream programmable up to 704 x 480/576 @ 25/20 fps ◦ Secondary stream programmable up to 352 x 240/288 @ 25/20 fps
Memory	64 MB flash, 128 MB SDRAM
Protocols*	Dynamic Host Control Protocol (DHCP), File Transfer Protocol (FTP), Hypertext Transfer Protocol (HTTP), Secure HTTP (HTTPS), Network Time Protocol (NTP), Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP), Simple Mail Transfer Protocol (SMTP), Secure Sockets Layer/Transport Layer Security (SSL/TLS), Transmission Control Protocol/Internet Protocol (TCP/IP)
Quality of Service (QoS)*	DSCP marking

* Features not supported when the camera is used with Cisco Video Surveillance Manager.

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Wireless Specifications

Table 2 provides wireless specifications Cisco 2500 Series Video Surveillance IP Camera.

Table 2. Cisco 2500 Series Video Surveillance IP Camera Wireless Specifications

Item	Specification
Wireless Interface	802.11b/g
Transmitted Power	• 802.11g:12–14 dBm • 802.11b:16–18 dBm
Receive Sensitivity	• 802.11g: 54Mbps @ –75 dBm • 802.11b: 11Mbps @ –88 dBm
Data Rate	• 802.11g: 6–54 Mbps • 802.11b: 1–11 Mbps
Antenna Gain	2 dBi
Mode	Infrastructure
Protocols	802.1x, AES, Temporal Key Integrity Protocol (TKIP), Wired Equivalent Privacy (WEP), WPA/WPA2 Personal, WPA/WPA2 Enterprise, Extensible Authentication Protocol-Transport Layer Security (EAP-TLS), EAP-Tunneled TLS (EAP-TTLS), Microsoft Challenge-Handshake Authentication Protocol (MS-CHAP), MS-CHAPv2, Protected EAP (PEAP), EAP-Message Digest 5 (EAP-MD5)

Connectors

Table 3 describes the connectivity and connectors of the Cisco 2500 Series Video Surveillance IP Camera.

Table 3. Cisco 2500 Series Video Surveillance IP Camera Connectors

Item	Specification
Network Connectivity	10/100 BASE-TX Ethernet with RJ-45 connector
Video	1 analog output BNC connector, 75 ohms
Audio*	• 1, 3.5-mm output jack for optional external speaker • 1, 3.5-mm input jack for optional external microphone • Built-in microphone • Two-way (full- and half-duplex) or one-way or audio off
Serial Port*	RS-485 (2-wire), Pelco D protocol only
Alarm Input*	2, logic level programmable
Alarm Output*	2, logic level programmable
Power	• 12 VDC, through optional external power supply, available separately • PoE (802.3af) @ 48V/0.3A

* Features not supported when the camera is used with Cisco Video Surveillance Manager.

Software

Table 4 describes the primary features of the Cisco 2500 Series Video Surveillance IP Camera software.

Table 4. Cisco 2500 Series Video Surveillance IP Camera Primary Software Features

Item	Specification
Activity Detection*	3 user-definable detection areas, e-mail alert and FTP uploading of captured video or JPEG snapshots triggered by motion alert
Wireless Security	Wired Equivalent Privacy (WEP) 64/128, Temporal Key Integrity Protocol (TKIP), Wi-Fi Protected Access Preshared Key (WPA-PSK), WPA2

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Item	Specification
VIDEO FORMAT	NTSC and PAL
Image Settings	Configurable color level, brightness, sharpness, contrast, white balance, and exposure control
Overlay Capabilities	Time, date, and camera ID
Selectable Bit Rate	Support for Constant Bit Rate or Variable Bit Rate (constant quality), and Variable Bit Rate with ceiling (bandwidth management by reducing frame rate rather than quality)
IP Filtering*	Users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings
Configuration	• Browser-based using Internet Explorer 6.x SP2 and later • Multiple user access levels with password protection

* Features not supported when the camera is used with Cisco Video Surveillance Manager.

Mechanical Specifications

Table 5 provides mechanical specifications of the Cisco 2500 Series Video Surveillance IP Camera.

Table 5. Cisco 2500 Series Video Surveillance IP Camera Mechanical Specifications

Item	Specification
Housing	Aluminum
LEDs	Power, Ethernet link, and activity
Dimensions	• 3.1 x 2 x 4.8 in. • 80 x 50 x 122 mm
Weight	• 1.15 lb • 0.52 kg
Certifications	FCC, CE, and UL
Operating Temperature	Indoors: • 32 to 122°F • 0 to 50°C Outdoors (when installed in an appropriate outdoor enclosure with heating and cooling): • –40 to 158°F • –40 to 70°C

Package Contents

Table 6 describes the items that ship with the Cisco 2500 Series Video Surveillance IP Camera.

Table 6. Package Contents

Item
Wired or wireless IP camera
Accessories: Lens opening dust cap, mounting hole protector, terminal block for power connection, C mount lens adaptor, 0.9-mm Allen wrench, two antennas (wireless model only)
Regulatory compliance and safety information
Quick start guide

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System Requirements

Table 7 describes the minimum system requirements for the Cisco 2500 Series Video Surveillance IP Camera.

Table 7. Minimum System Requirements

Item
10/100 BASE-T hub, router, or switch (802.3af-compliant switch required for optional PoE)
Windows XP with Internet Explorer 6.x SP2 or later
2-GHz Pentium 4 or AMD Athlon-class CPU with 512 MB RAM, with 64-MB AGP video adapter

Availability

The Cisco 2500 Series Video Surveillance IP Camera is available through Cisco Authorized Technology Provider (ATP) Partners.

Ordering Information

Table 8 lists the part numbers for the Cisco 2500 Series Video Surveillance IP Camera and for the lenses that the camera supports.

Table 8. Ordering Information

Part Number	Description
CIVS-IPC-2500	Cisco Video Surveillance IP Camera, Wired
CIVS-IPC-2500W	Cisco Video Surveillance IP Camera, Wireless
CIVS-PWRPAC-12V	12 VDC @ 1.6A Power Supply
Lenses	
CIVS-IPC-VT38	Cisco IP Camera Tamron 3–8 mm Varifocal Lens
CIVS-IPC-VT31	Cisco IP Camera Tamron 3–11 mm Varifocal Lens
CIVS-IPC-VT55	Cisco IP Camera Tamron 5–50 mm Varifocal Lens
CIVS-IPC-VF38	Cisco IP Camera Fujinon 3–8 mm Varifocal Lens
CIVS-IPC-VF31	Cisco IP Camera Fujinon 3–11 mm Varifocal Lens
CIVS-IPC-VF55	Cisco IP Camera Fujinon 5–50 mm Varifocal Lens

Using the Camera with Cisco Video Surveillance Manager

Features that are marked with an asterisk (*) are not supported if when using the camera with Cisco Video Surveillance Manager.

Services and Support

Cisco and our certified partners can help you accelerate success and improve the return on your investment in a Cisco Physical Security Solution. The Cisco lifecycle approach to services defines the requisite activities at each phase of the solution lifecycle:

- Reduce deployment costs by identifying the features that will best meet your business requirements
- Accelerate migration by assessing the readiness of your network to support the system and by developing a sound design

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- Support smooth implementation through effective planning and expert installation, configuration, and integration
- Increase operational efficiency and extend the value of your investment with award-winning technical support

For more information about Cisco services, visit http://www.cisco.com/go/services.

For More Information

For more information about the Cisco2500 Series Video Surveillance IP Camera, visit http://www.cisco.com/go/videosurveillance or contact your local account representative.

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